

### ABSTRACT OF THE INVENTION

Disclosed are computer systems with intelligent or autonomous decision systems which include means for determining relevancy, i.e., the threats to and opportunities of the autonomous decision system. Also disclosed are such autonomous decision systems constructed and arranged to interact sociably with humans, including the use of natural languages and bonding. The desired "whether concrete is included in abstract" computation system is enhanced by a system of categorizing natural objects using as primitives a set of self tendencies suitable, when hierarchically assigned to objects, to do incremental simulation of "future" situations (including such objects) from a presented situation. Using such primitives and computation system, planning, learning, languaging, etc., are efficiently accomplished.